

4 a low pass filter coupled to the current sense resistive element; and  
5 a full-wave rectifier coupled to the low pass filter and configured to generate a  
6 DC signal representing the transducer load current.

1 6 (original): The driver circuit of claim 5 further comprising a current  
2 transformer coupled between the current sense resistive element and a magnetic coil.

1 7 (original): The driver circuit of claim 5 wherein the low pass filter comprises a  
2 fourth order active filter.

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1 8 (original): The driver circuit of claim 1 further comprising an alarm circuit  
2 coupled between the current sense circuit and the controller, and configured to disable the pulse  
3 width modulator when the load current reaches a predetermined threshold.

1 9 (original): The driver circuit of claim 8 wherein the alarm circuit comprises a  
2 comparator having a first input coupled to an output of the current sense circuit and a second  
3 input coupled to a reference signal corresponding to the predetermined threshold.

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1 10 (original): The driver circuit of claim 9 wherein each of the first and second  
2 switches comprises a field effect transistor.

1 11 (original): The driver circuit of claim 10 wherein the pulse width modulator is  
2 configured to generate a first pulse width modulated signal PWM1 coupled to a gate terminal of  
3 first field effect transistor switch, and a second pulse width modulated signal PWM2 coupled to a  
4 gate terminal of second field effect transistor switch, wherein the signals PWM1 and PWM2 are  
5 non-overlapping pulses.

1 12 (original): The driver circuit of claim 11 wherein the pulse width modulator  
2 generates signal PWM1 at one of a rising or falling edge of the output signal of the VCO, and  
3 generates signal PWM2 at the other one of the rising or falling edge of the output signal of the  
4 VCO.